

PROCEEDINGS
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BIOLOGICAL SOCIETY OF WASHINGTON

A NEW CHEILANTHES FROM MEXICO.¹

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In distinguishing recently² the characters separating *Cheilanthes tomentosa* Link and *C. Eatonii* Baker, whose ranges overlap in the territory from Oklahoma to the Mexican border region of New Mexico and Arizona, the following apparently undescribed Mexican species was detected:

Cheilanthes castanea Maxon, sp. nov.

Rhizome short-creeping, nodose or short-branching, the divisions 1 to 3 cm. long, less than 1 cm. thick, densely paleaceous, the scales oblique, imbricate, falcate, 3 to 3.5 mm. long, about 0.6 mm. broad at the base, subulate-attenuate, rather lax, tawny, with a distinct glossy, dark brown, sclerotic, median stripe extending nearly to the filiform, flexuous tip. Fronds few, very closely distichous, erect, 16 to 30 cm. long; stipe 9 to 18 cm. long, castaneous, sublustrous beneath a thin covering of appressed to rigidly ascending, pale tawny scales, the larger of these linear-attenuate, underlaid by minute acicular ones; lamina linear to linear-oblong, long-acuminate, 7 to 17 cm. long, 2 to 4 cm. broad, tripinnate, the rachis similar to the stipe but with larger and more numerous scales; larger pinnae 8 to 12 pairs, spreading (or with age oblique and involute), distant, sessile, deltoid-oblong, acutish, slightly inequilateral; secondary rachises persistently paleaceous, the scales rather large, flaccid, imbricate, linear-deltoid to ovate, long-acuminate, firmly attached at the cordate base, erose-denticulate, tawny; segments of the larger pinnules mostly 3 or 5, oblong, entire, unequal, the terminal ones the longest (up to 4 mm. long), with a cuneate base; segments loosely but copiously tomentose beneath with spirally crispate, light castaneous hairs, glabrate above, the few similar but griseous hairs easily deciduous; segments mostly fertile, the recurved margin gradually thinner, slightly repand, minutely sinuate, pale, hardly forming a proper indusium; sporangia not concealed at maturity, the tomentum separating evenly from the indusiiform margin. Leaf tissue rather rigidly herbaceous, dull grayish green.

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²Amer. Fern Journ. 9: 3, 4. 1919.

Type in the U. S. National Herbarium, No. 827,224, collected in the mountains 12 to 14 leagues south of Saltillo, State of Coahuila, Mexico, March 22 to 30, 1880, by Edward Palmer (No. 1390). A second specimen of the same collection is mounted on sheet No. 41,934.

Determined by Eaton¹ as *Cheilanthes gracillima*, a species described from the Cascade Mountains, Oregon, and ranging from Vancouver Island to western Montana, southward in the mountains to Nevada and the Yosemite region, California. Notwithstanding its much greater size, it resembles *C. gracillima* considerably in outline and subdivision of the lamina; but in minute characters that species is very different, for example, in the presence of minute, deciduous, stellate scales (rather than hairs) upon the upper surface of the segments, and in the scaly vestiture of the rachises, the scales being much narrower and copiously long-ciliate (rather than erose-denticulate). The relationship of *C. castanea* is apparently with *C. Eatoni*, from which species it differs sufficiently in its fewer and several times larger segments, these glabrate above and separate, not closely enveloped and held together by a mass of entangled hairs arising from both surfaces, as in *C. Eatoni*. The scales of the rachises are quite different in character also.

Pringle's 11,277, from Hidalgo, is apparently the same plant in a less mature condition. It was distributed as *C. gracillima*.

¹Proc. Amer. Acad. 18: 186. 1883.